# CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

**NABL** - Accredited Laboratory as per ISO / IEC-17025 :2005

T-2377


Job No.: CTCE/BBMP/W.No10/ER/CSR-1/733f/CEMENT/2014-15 Date: 14.01.2015

## TEST REPORT ON CEMENT

| | | |
|---|---|---|
| *** CUSTOMER** | : | **Asst. Executive Engineer**, Vidyaranyapura Sub Division, BBMP, Bangalore. |
| ***AGENCY** | : | **Mr. E. Rameshanand,** Contractor, Bangalore. |
| ***NAME OF THE WORK** | : | Improvements to Roads, drains and covering slab at Opp Royal Bakery Road in Ramanna Garden in Ward No.10 (Doddabommasandra), Vidyaranyapura Sub Division, BBMP, Bangalore. |
| ***REFERENCE** | : | AEE/VPN/461/7/2014-15 Dated: 12.01.2015 |
| **SAMPLE ID** | : | Cement - (Sample 1) |
| **SAMPLE RECEIVED ON** | : | 12.01.2015 |
| **PERIOD OF TESTING** | : | 12.01.2015 to 14.01.2015 |

The results of the tests conducted on the cement sample are as follows:

| Sl. No | Descriptions | Test Method as per IS | Test Result | Requirements as per IS: 8112-2013 |
|---|---|---|---|---|
| 1 | Standard Consistency | IS-4031 (Part -4) 1988(RA-2009) | 29.50 % | - |
| 2 | a) Initial Setting Time | IS-4031 (Part -5) 1988(RA-2009) | 165 Minutes | Not Less than 30 Minutes |
| | b) Final Setting Time | IS-4031 (Part -5) 1988(RA-2009) | 490 Minutes | Not More than 600 Minutes |
| 3 | Soundness by Le Chartlier Method | IS-4031 (Part-3) 1988(RA-2009) | 1 mm | Not more than 10mm |

*Information is furnished by the Customer/Representative.

Note:

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⇒ The results indicated above are based on the tests carried out on the samples received in the laboratory.

⇒ Any Query regarding the report must be reported within 30 days from the date of testing.

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Quality Manager


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T-2377


Job No.: CTCE/BBMP/W.No10/ER/CSR-1/733f/SAND-Gradation/2014-15 : 14.01.2015

## TEST REPORT ON DETERMINATION GRADATION OF FINE AGGREGATES

*** Customer** : **Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.

*** Agency** : **Mr. E. Rameshanand,** Contractor, Bangalore.

*** Name of Work** : Improvements to Roads, drains and covering slab at Opp Royal Bakery Road in Ramanna Garden in Ward No.10 (Doddabommasandra), Vidyaranyapura Sub Division, BBMP, Bangalore.

**Reference** : AEE/VPN/461/7/2014-15 Dated: 12.01.2015

**Technical Reference** : IS : 2386 Part 1 - 1963 RA-2007

**Sample ID** : Fine Aggregates - (Sample 1)

**Sample Received on** : 12.01.2015

**Date of Testing** : 14.01.2015

Total Wt. of Aggregates in gms **1000**

| Is Sieve Size in mm | Cumulative Weight Passing in % | Specific Limits as per IS 383-1970 (RA- 2007) | | | |
|---|---|---|---|---|---|
| | | Zone-I | Zone-II | Zone-III | Zone-IV |
| 10 | 100 | 100 | 100 | 100 | 100 |
| 4.75 | 94.20 | 90-100 | 90-100 | 90-100 | 95-100 |
| 2.36 | 76.20 | 60-95 | 75-100 | 85-100 | 95-100 |
| 1.18 | 53.70 | 30-70 | 55-90 | 75-100 | 90-100 |
| 600 Micron | 28.50 | 15-34 | 35-59 | 60-79 | 80-100 |
| 300 Micron | 12.50 | 5-20 | 8-30 | 12-40 | 15-50 |
| 150 Micron | 2.70 | 0-10 | 0-10 | 0-10 | 0-15 |

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Civil-Tech Consultants & Engineers Bangalore

**Remarks :** This sample is under Zone-I specific limits.

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Job No.: CTCE/BBMP/W.No10/ER/CSR-1/733f/AGG/GR/2014-15 : 14.01.2015

## TEST REPORT ON DETERMINATION GRADATION OF COARSE AGGREGATES

*** Customer** : **Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.

*** Agency** : **Mr. E. Rameshanand,** Contractor, Bangalore.

*** Name of Work** : Improvements to Roads, drains and covering slab at Opp Royal Bakery Road in Ramanna Garden in Ward No.10 (Doddabommasandra), Vidyaranyapura Sub Division, BBMP, Bangalore.

**Reference** : AEE/VPN/461/7/2014-15 Dated: 12.01.2015

**Technical Reference** : IS : 2386 Part 1 -1963 RA-2007

**Sample ID** : Coarse Aggregates (40mm) - (Sample 1)

**Sample Received on** : 12.01.2015

**Date of Testing** : 14.01.2015

Total Wt. of Aggregates in gms= **10000**

| Is Sieve Size in mm | Cumulative Weight Passing in % | Specific Limits as per IS 383-1970 (RA- 2007) | |
|---|---|---|---|
| | | Graded | Single Sized |
| 80 | 100 | 100 | - |
| 63 | 100 | - | 100 |
| 40 | 97.00 | 95-100 | 85-100 |
| 20 | 47.12 | 30-70 | 0-20 |
| 10 | 25.67 | 10-35 | 0-5 |
| 4.75 | 3.54 | 0-5 | - |

* Information is furnished by the Customer/Representative

**Remarks :** This sample is under Graded specific limits.

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# CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

**NABL** - Accredited Laboratory as per ISO / IEC-17025 : 2005


Job No.: CTCE/BBMP/W.No10/ER/STEEL/2014-15 14.01.2015

## TEST REPORT ON REINFORCEMENT STEEL

| | | |
|---|---|---|
| Customer | : | **Asst. Executive Engineer**, Vidyaranyapura Sub Division, BBMP, Bangalore. |
| Agency | : | **Mr. E. Rameshanand,** Contractor, Bangalore. |
| Name of the work | : | Improvements to Roads, drains and covering slab at Opp Royal Bakery Road in Ramanna Garden in Ward No.10 (Doddabommasandra), Vidyaranyapura Sub Division, BBMP, Bangalore. |
| Reference | : | AEE/VPN/461/7/2014-15 Dated: 12.01.2015 |
| Date of Test | : | 14.01.2015 |
| Technical Reference | : | IS: 1786-2008 |

| Sl. No | Nominal size (dia) (mm) | Mass per metre (Kg/mtr) | TENSILE STRENGTH | | | Bend Test | Rebend Test |
|---|---|---|---|---|---|---|---|
| | | | 0.20% proof stress/Yield stress N/mm² | Tensile strength (Ultimate stress) N/mm² | Elongation percent gauge length | | |
| 1 | 10 | 0.62 | 513 | 556 | 13.05 | O.K | O.K |

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T-2377


Job No.: CTCE/BBMP/W.No10/ER/CSR-1/733f/CUBE/2014-15 20.02.2015

## TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

*** Customer** : **Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.

*** Agency** : **Mr. E. Rameshanand,** Contractor, Bangalore.

*** Name of the work** : Improvements to Roads, drains and covering slab at Opp Royal Bakery Road in Ramanna Garden in Ward No.10 (Doddabommasandra), Vidyaranyapura Sub Division, BBMP, Bangalore.

*** Reference** : AEE/VPN/461/7/2014-15 Dated: 12.01.2015

*** Sample ID** : Drain Concrete

**Size of cubes** : 150mmx150mmx150mm

**Cross Sectional Area** : 22500 $mm^2$

**Technical Reference** : IS: 516-1959 (Reaffirmed 2008)

*** Grade of Concrete** : $M_{20}$

**Compressive Strength as on** : 28th day

**Sample Received on** : 23.01.2015

| Sl.No. | * Date of casting | Date of testing | Weight of cube (Kg) | Failure load (KN) | Compressive strength ($N/mm^2$) |
|---|---|---|---|---|---|
| 1 | 23.01.2015 | 20.02.2015 | 8.197 | 478.9 | 21.28 |
| 2 | 23.01.2015 | 20.02.2015 | 8.241 | 499.6 | 22.20 |
| 3 | 23.01.2015 | 20.02.2015 | 8.321 | 517.2 | 22.99 |

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